

Date: Tuesday, 9/25/2007 10:12:29 AM
User: Kim Johnston

Process Sheet

42

| | | | |
|-----------------------|---|------------------|------------------------------------|
| Customer | : CU-DAR001 Dart Helicopters Services | Drawing Name | : SHORT STEP ASSEMBLY HIGH SKID RH |
| Job Number | : 34845 | | |
| Estimate Number | : 10720 | | |
| P.O. Number | : N/A | Part Number | : D350591214 |
| This Issue | : 9/25/2007 S.O. No. : N/A | Drawing Number | : D3078 REV A |
| Prsht Rev. | : NC | Project Number | : N/A |
| First Issue | : N/A Type : LARGE FAB ASSY | Drawing Revision | : A |
| Previous Run | : 33955 | Material | : N/A |
| Written By | : | Due Date | : 10/15/2007 |
| Checked & Approved By | : <u>07.09.25</u> | Qty: | 8 Um: Each |
| Comment | Est Rev: B 05.10.14 Modified step 10 KJ/EC Est Rev: C 06-06-19 Added D2732-030 AS PER DSI9294 JLM Est Rev: C 06-06-27 Revised as per DSI9340 JLM | | |

Additional Product

Job Number:



| | | |
|---------|-----------------------|---------------|
| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|

| | | |
|-----|----|------------------|
| 1.0 | DC | DOCUMENT CONTROL |
|-----|----|------------------|



RS 07.09.26

Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-214 CHG002

5 21/10/16

| | | |
|-----|-----------|-----------|
| 2.0 | D2622120C | Extrusion |
|-----|-----------|-----------|



Comment: Qty.: 0.5000 Each(s)/Unit Total : 3.0000 Each(s)

Pick:

| | | |
|-----------------|-------------|-------|
| Qty Part Number | Description | Batch |
|-----------------|-------------|-------|

.5 D2622-120

Extrusion

331984=1

334016=6

07.09.27

| | | |
|-----|-------------|------------------------------|
| 3.0 | LARGE FAB 1 | LARGE FABRICATION RESOURCE 1 |
|-----|-------------|------------------------------|



Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.

3-Deburr

07.09.27

07.09.27

07.09.27

| | | |
|-----|-----|------------------------------|
| 4.0 | QC5 | INSPECT WORK TO CURRENT STEP |
|-----|-----|------------------------------|



Comment: INSPECT WORK TO CURRENT STEP

5 11/09/28

07

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Date: Tuesday, 9/25/2007 10:12:30 AM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SH0RT STEP ASSEMBLY HIGH SKID RH

Job Number: 34845

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3067-1

End Plate B 34312*PH 07.09.28*

7

6.0

D30631

Support



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3063-1

Support B 30892*PH 07.09.28*

7

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

PH 07.09.28

7

2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3078

A/R Aluminum Rod M103794*PH 07.09.28*

7

3-Grind End Plate flush

*am 07.10.01**Q*

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PH 07.10.01

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

PH 07.10.01 (47) (H)

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*am 07.10.01**Q*

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 34845

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



07-01-02



x2

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

12.0

D3065041

Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

B33510

a.m 07.10.02

(7)

13.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

B33670

a.m 07.10.02

(7)

14.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 96.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W4

Rivet

M105108

a.m 07.10.02

(7)

15.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Rivet Leg Assembly as per Dwg D3078.

a.m 07.10.02

(7)

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/10/02

17.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3067-1

End Plate

B34312

07.10.02

7

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 34845

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description:

18.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3078

A/R Aluminum Rod M103794

4-Grind End Plate flush

07-10-02

07-10-02 7
07-10-02 7
07-10-02 7
⑨

19.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

07-10-02 ⑦

20.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07-10-02 x ⑦

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch Up Chemical conversion

07-10-02
RH ⑦

22.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M105086

07-10-03 ⑦

23.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3078 and QSI 005 4.4

M105694

07-10-03 ⑦

24.0

QC3

INSPECT POWDER COAT/CHEMICAL-CONVERSION



Comment: Inspect Powder Coat and Wing Walk

7/10/586
⑦

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 34845

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

26.0

D22303

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2230-3

Clamp

B30993(8x)

B34587(6x)

27.0

D22301

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2230-1

Clamp

B32163

28.0

D2732

Rubber Extrusion



Comment: Qty.: 0.5000 f(s)/Unit Total : 3.0000 f(s)

Rubber Extrusion

4 X 3"

Batch:

B26472

22mcx

B34717(6x)

29.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 3.6000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D2856-400(7.2")

Abrasion Strip

B34293

30.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A

Bolt

M105408

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 34845

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

AN411A

Bolt

HH X



EP



Comment: Qty.: 6.0000 Each(s)/Unit Total : 36.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 AN4-11A

Bolt

M102280 -

32.0

AN413A

Bolt

HH X



EP



Comment: Qty.: 4.0000 Each(s)/Unit Total : 24.0000 Each(s)

Bolt

Batch:

M105426 -

33.0

AN960JD10

Washer

HH X



EP



Comment: Qty.: 4.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

M100151 -

34.0

AN960JD416

Washer

HH X



EP



Comment: Qty.: 12.0000 Each(s)/Unit Total : 72.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 AN960JD416

Washer

M104746 -

35.0

MS21042L3

Nut

HH X



EP



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3)

M104625 -

36.0

MS21042L4

Nut

HH X



EP



Comment: Qty.: 6.0000 Each(s)/Unit Total : 36.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 MS21042L4

Nut (or -4)

M104683 -

EP 07/10/04 (7)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ED Date: 21/01/18
 QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
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NOTE: Date & initial all entries

Date: Tuesday, 9/25/2007 10:12:30 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 34845

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

37.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

C 09/16/16 (77)

38.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-214

Location: _____

PPP Rev: _____

C 09/16/16 (7)

39.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/16/16

Job Completion



11/07/16

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries



RELEASED
02.09.20

| | | | |
|-------------------------|-----------------------|--|------------------------|
| DESIGN <i>CP</i> | DRAWN BY <i>CP</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED <i>#</i> | APPROVED <i>#</i> | DRAWING NO. D3078 | REV. A SHEET 1 OF 2 |
| DATE 02.09.11 | | TITLE STEP ASSEMBLY, HI SHORT SCALE NTS | |
| A | 02.09.11 | NEW ISSUE | |

| Part No. | Description | QTY -041 | QTY -042 |
|--------------|--------------------------------|-------------|-------------|
| D3078-041 | Step Assembly, High Short (LH) | X | |
| D3078-042 | Step Assembly, High Short (RH) | | X |
| | | | |
| D2622-60 | STEP EXTRUSION | 1 | 1 |
| D3063-1 | SUPPORT | 1 | 1 |
| D3065-041 | LEG ASSEMBLY | 1 | 1 |
| D3066-1 | SPACER | 2 | 2 |
| D3067-1 | END PLATE | 2 | 2 |
| | | | |
| MS20600AD4W4 | RIVET | 16 | 16 |
| | | | |

GENERAL NOTES:

- 1) -041 SHOWN, FOR -042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

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WITHOUT NOTICE
WORK ORDER
NO. 34845

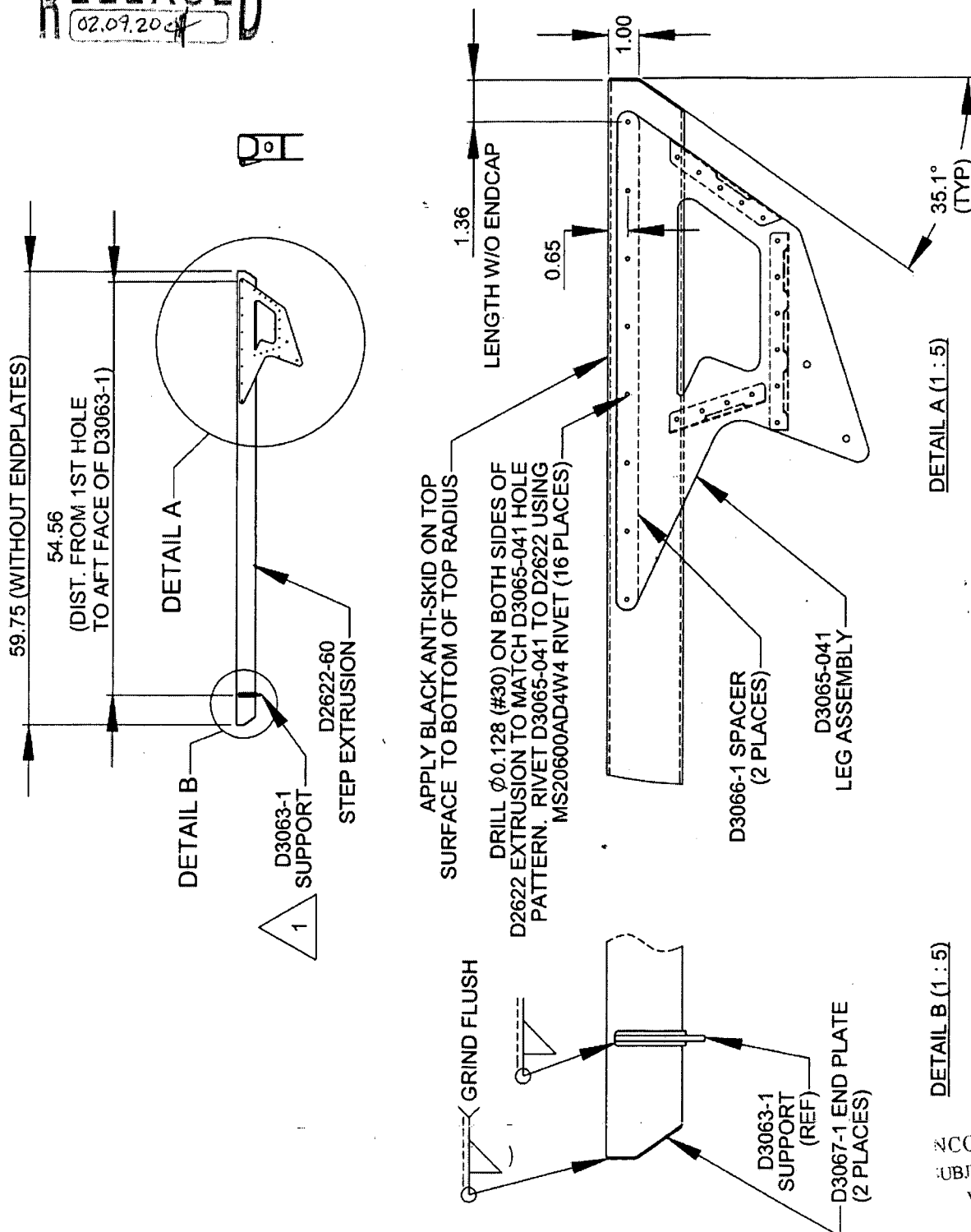
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|----------------------|-----------------------|---|------------------------|
| DESIGN <i>ap</i> | DRAWN BY <i>ap</i> | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED <i>ap</i> | APPROVED <i>ap</i> | DRAWING NO. D3078 | REV. A SHEET 2 OF 2 |
| DATE 02.09.11 | | TITLE STEP ASSEMBLY, HI SHORT | SCALE 1:20 |

RELEASED
02.09.2011



59.75
- 1.36
58.39

DETAIL A (1:5)

DETAIL B (1:5)

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WORK ORDER
34845

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